THE RELATIVE USE OF FORM 8-K DISCLOSURES:

A TRADING RESPONSE ANALYSIS

A Dissertation

by

ANDREW JOHN MCLELLAND

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2003

Major Subject: Accounting

THE RELATIVE USE OF FORM 8-K DISCLOSURES:

A TRADING RESPONSE ANALYSIS

A Dissertation

by

ANDREW JOHN MCLELLAND

Submitted to Texas A&M University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Approved as to style and content by:

William M. Cready (Co-Chair of Committee)	Martha L. Loudder (Co-Chair of Committee)
Gary A. Giroux (Member)	Asghar Zardkoohi (Member)
	James Benjamin (Head of Department)

August 2003

Major Subject: Accounting

ABSTRACT

The Relative Use of Form 8-K Disclosures:

A Trading Response Analysis. (August 2003)

Andrew John McLelland, B.S., Florida Atlantic University;

M.B.A., Florida State University

Co-Chairs of Advisory Committee: Dr. William M. Cready
Dr. Martha L. Loudder

Prior research suggests that the use of accounting information differs substantially by investor class. My analysis extends this line of research to the area of SEC Form 8-K filings. Prior research also provides mixed evidence on the informativeness of these filings. I hypothesize that the method of the disclosure is an important factor in evaluating 8-K usefulness to varying types of investors. Specifically, the timing, venue, and packaging of these accounting disclosures affect their use by investors. SEC Regulation Selective Disclosure and Insider Trading (2000) considers both press releases and 8-K filings as broad-based disclosures that do not favor any investor class. I, however, identify five unique informational settings in which 8-K filings occur. The five settings are: a concurrent 8-K event and filing (with or without a press release), a filing which precedes the press release, a press release that precedes the filing, an 8-K event that precedes a filing and/or press release, and the 8-K event alone. I examine the similarities and differences in trading by small and large investors across these settings. The identification of these empirical regularities with respect to disclosure

form should be particularly useful to policy makers seeking to implement level playing field objectives with respect to public disclosures. My findings show that the relative trading activity to 8-K filings is different by the type of disclosure. Differential trading activity was found to be more pronounced in disclosure settings that contained a public announcement. In addition, the type of Form 8-K disclosure also had an effect on the differential trading activity. Form 8-K filings of acquisition or disposition of assets were associated with the most pronounced responses. My findings show the differential trading activity to these filings differs from other accounting events such as earnings announcements and annual report filings.

DEDICATION

This dissertation is dedicated to my sister, Debra Ann Mercer, who is the most courageous person I have ever known. She is a constant inspiration and has made me a better human being.

ACKNOWLEDGMENTS

I wish to acknowledge the contributions of the members of my dissertation committee, Drs. Gary A. Giroux and Asghar Zardkoohi. In particular, I wish to thank my co-chairs, Drs. William M. Cready and Martha L. Loudder, for their advice and guidance. The comments of Dr. Michael Wilkins, who critiqued the earlier version of the dissertation, and the participants in the doctoral workshop at Texas A&M University, are appreciated. I would like to acknowledge the financial support from the Texas A&M University Board of Regents and the Department of Accounting.

I want to thank all of the accounting faculty and Ph.D. students at Texas A&M University. Almost every one of them made it an enjoyable place to pursue a doctorate. Specifically, I would like to thank my classmate, Wanda M. Mattei-Ballester, doctoral student David Adut, and Professor Gary A. Giroux for their friendships which I will treasure forever. I also thank Billy Soo for the list of Form 8-Ks filed in 1993.

Finally, I would like to thank God who made all of this possible, my parents, sister and family members for their support, and Mr. and Mrs. Zophere who helped me start my college journey.

TABLE OF CONTENTS

Page

LIST OF FIGURES

Page

LIST OF TABLES

Page

CHAPTER I

INTRODUCTION

This study investigates the trading behavior of large and small investors around 8-K disclosures. The Securities and Exchange Commission (SEC) requires that a Form 8-K be filed for certain events not previously disclosed (e.g., acquisition or disposition of assets, changes in certifying accountant, change in fiscal year, etc.).[1] Studies in the accounting literature often examine whether accounting disclosures provide investors with useful information to make trading decisions.[2] This study asks a different, but related, question: what is the relative composition of investors using 8-K disclosures as a function of how and when they are disclosed?

Form 8-K disclosures provide timely information to investors making valuation decisions between the filings of more detailed quarterly reports (Form 10-Qs). For example, in 1999 over 30,000 Form 8-K's were filed using the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. Based on the timing and magnitude of this information release, 8-K disclosures should be a significant and valuable source of information for investors. Knowledge of the differential use of 8-K disclosures is important for at least two reasons. First, Lev (1988) argues that the usefulness of accounting information differs across various classes of investors.

This dissertation follows the style of *Accounting Review*.

[1] Securities Act of 1934, Sections 13 and 15(d).

[2] Carter and Soo (1999) find significant price and volume reactions to 8-K filings.

If investors' uses of 8-K disclosures differ by the type of investor, then my study may be important to policy makers and regulators interested in examining if a level playing field exists for all investors. According to the SEC, investor protection was Chairman Levitt's top priority.[3] The SEC Regulation Selective Disclosure and Insider Trading (2000) considers either press releases or 8-K filings as broad-based disclosures, which do not favor either investor class. This study is the first to investigate the difference between investor groups' responses to Form 8-K disclosures. Second, it is not known if previous research examining a heterogeneous response to accounting information is generalizable to 8-K disclosures. A differential trading activity has been documented for both earnings announcements (Cready 1988, Lee 1992, Radhakrishna 1998, and Bhattacharya 2001), and annual reports (Cready and Mynatt 1991). Form 8-K disclosures are different from these types of accounting information (the events are randomly spread throughout the year), and their importance to various classes of investors is unexplained. This study will provide further evidence on the differential use of accounting information by investor type.

The SEC and other regulators set standards so as to create a level playing field across all public companies and users of financial information.

[3] SEC Biography: Chairman Arthur Levitt, January 2001.

The level playing field theory assumes that all investors are equally rational in how they process information; however, two different types of investors are assumed: sophisticated and unsophisticated.[4] Regulators set standards designed to optimally "package" the mandated information in order to achieve equality of access and opportunity, that is, "fair disclosure" (Beatty and Hand 1992).[5] Unsophisticated users directly value packaging, because it lowers their information accessing and processing costs (Betty and Hand 1992). "When selective disclosure leads to trading by the recipients of the disclosure or trading by those whom these recipients advise, the practice bears a close resemblance to ordinary "tipping" and insider trading. The economic effects of the two practices are essentially the same; in both cases, a few persons gain an informational edge - - and use that edge to profit at the expense of the uninformed (SEC Fair Disclosure Act, p. 21)."[6]

Previous research identifies systematic differences in the types of information acquired, cost of acquiring information, and information processing abilities of institutions and individuals (Kim et al. 1997). The investor trade size research suggests that small traders respond to different information signals than large traders (e.g., earnings announcements and annual report filings).

---

[4] Institutions may be superior to individuals in their information processing ability (Kim and Verrichia 1994 and Bamber and Cheon 1995). Therefore, institutional investors are considered as the more sophisticated trader.

[5] Packaging is the form and manner that information is bundled or presented to users (investors). For example a company can file an 8-K with and without a press release.

[6] SEC Final Rule: Selective Disclosure and Insider Trading, Section V. Cost-Benefit Analysis, Part A Regulation FD: Selective Disclosures, Section 1. Benefits.

Researchers find that large traders have a quicker and stronger reaction to earnings announcements relative to smaller traders (Cready 1988 and Lee 1992). Frankel et al. 1999 find a similar response to conference calls made after earnings announcements. In contrast, only a small trader response is detected at annual report release dates (Cready and Mynatt 1991).

Researchers examining the information content of Form 8-K filings have produced mixed results (e.g., Pastena [1979], Klock [1994], and Carter and Soo [1999]). The mixed results are partially explained by the difficulty in identifying the appropriate event dates and controlling for confounding disclosures. Klock (1994, p. 342) states "it is not always clear what date the information becomes known to the market." Form 8-K filings create unique disclosure settings that are different from other accounting disclosures such as earnings announcements and annual reports The event date is the circumstance that requires the filing of an 8-K (e.g., the day a registrant disposes of a significant amount of assets). An 8-K filing is also an event (recognized by the date received by the SEC). The event date and the filing can be on the same day, or the filing date can follow from one day to several months later. A third event is the announcement date. An announcement occurs when a press release or newspaper article discloses the event. The announcement date can also occur concurrently with, before, or after the event and filing dates. Previous studies do not examine 8-K filings as a package of disclosure activities, focusing either on the specific event or the filing of the 8-K, but not on the sequential information releases. Using a sample of 1993 Form 8-K filings, I plan to construct five unique disclosure settings representing packages of company

information. Each disclosure setting may contain one or more tests of relative investor trading.

Specifically, I will investigate the relative usage of 8-K disclosures using mean transaction sizes. Mean transaction size, measured by the number of shares traded in a company's stock divided by the number of transactions, is used to identify the relative mix of trading by investors. In investor trade size research, larger trades are attributed to institutional traders, while smaller transactions are attributed to relatively less wealthy individuals. I assume that investors belong to either the small non-institutional or large institutional investor group. If trade size is a credible proxy for institutional versus individual investors trading activities, I will be able to make predictions with regard to relative investor use of 8-K disclosures.[7]

My findings show that the relative trading activity to 8-K filings is different by the type of disclosure. Relative trading responses were found to be more pronounced in disclosure settings that contained a public announcement. Regulators and standard setters might find this important in determining the format of disclosure requirements. In addition, the type of Form 8-K disclosure also had an impact on the relative trading activity. Form 8-K filings concerning acquisition or disposition of assets had the most pronounced differences. Finally, the relative trading activity to these filings differs from other accounting events such as earnings announcements and annual report filings.

[7] Mean trade size metrics have been used as proxies for different investor classes in Cready 1988, Cready and Mynatt 1991, Lee 1992, Brackney and Cready 1999, and Frankel et al. 1999.

I find a negative followed by positive mean transaction size, the opposite of other accounting events.

The remainder of this paper is organized in four sections. The next section provides an overview of investor trade size and Form 8-K research. In section III, I discuss 8-K filings, the research design, the hypotheses, and the sample. Section IV, contains the empirical results, while the last section includes a summary and concluding remarks, including limitations and opportunities for future research.

CHAPTER II

LITERATURE REVIEW

Investor Trade Size Research

Many researchers interested in how accounting information affects investor behavior have turned to transactions data. Using empirical proxies for the type of investor, researchers examine how different investor groups react to various news signals. Large and small traders may respond differently to accounting information signals (Potter 1992). The most widely studied event is earnings announcements (Cready 1988, Lee 1992, Radhakrishna 1998, and Bhattacharya 2001). In addition, Boone and Raman (2001) examine the differential trading associated with auditor resignations versus dismissals, while Cready and Mynatt (1991) investigate investor response to the issuance of annual reports. A recent study by Frankel et al. (1999), examines the type of investor response to conference calls. No study to date has examined the differential response to aggregate 8-K filings. Since 8-Ks disclosures are a unique source of accounting information, it is not known what type of response will be found.

Cready (1988) is the first study to investigate the trading behavior of institutional versus small investors. In a sample of NYSE annual and quarterly earnings announcements, he finds average transaction size increases around the event dates. In addition, using size-stratified transactions based on the number of shares, Cready documents that the speed of a trading response increases with transaction size strata.

Consequently, these results are consistent with information value increasing with investor wealth.

Lee (1992) extends Cready's findings using intraday data on NYSE announcements. He distinguishes between large and small traders using a cutoff transaction value of $10,000. Lee observes a stronger and quicker trading response for large traders than for small. Large traders tend to trade on the announcement date while small traders are active for several subsequent days. Furthermore, small traders tend to be net buyers (buyers exceed sellers) regardless of the type of earnings news (good versus bad news). Lee finds that small and large traders have a heterogeneous reaction to the same earnings announcement.

Radhakrishna (1998) investigates the affect of earnings news announcements on the trading reactions of different investor groups (individuals, institutions, exchange members, specialists, and program trades) using the TORQ database. The TORQ database contains an audit file that provides the trader type for NYSE trades.[8] The results indicate that institutional traders are major traders in the immediate aftermath of an announcement, while individual investors increase their trading, but there is a marginal delay in their entry into the market.

Brackney and Cready (1999) investigate the effect of timeliness on relative investor trading responses to annual earnings announcements.

[8] The TORQ data set contains trader identification information on 144 firms (mostly NYSE) for the period November 1990 to January 1991.

Unexpected reporting lag measures timeliness, while mean transaction size proxies for relative investor trading. Results show that timeliness has a significant effect on announcement period mean transaction sizes.

Bhattacharya (2001) hypothesizes that the earnings expectations of small traders are associated with predictions from a seasonal random walk model, while large traders' earnings expectations are not. The study finds that small traders' responses around earnings announcements are increasing in the magnitude of seasonal random walk forecast errors, even after controlling for absolute analyst forecast errors, contemporaneous price changes and market wide trading. He concludes that the segment of the market that appears to anchor on the seasonal random walk model is disproportionately populated by small traders.

Cready and Mynatt (1991) examine the price and trading responses to annual report release dates. Using both the number of transactions and a transaction value cutoff to proxy for investor type, they observe a trading reaction to annual reports in only the smallest trade sizes. Cready and Mynatt conclude that small investors rely more on the annual report than large investors.

Boone and Raman (2001) examine the trading activity associated with auditor dismissals and resignations using the same methodology as Cready and Mynatt (1991); however, they examine the dismissals and resignations using intraday trading data. The authors find auditor resignations informative only to low wealth investors, and conclude that this suggests that sophisticated investors can anticipate auditor resignations based on an analysis of publicly available litigation risk data.

Frankel et al. (1999) examine the characteristics of firms that hold conference calls, whether these calls are informative, and whether these calls provide equal access to all investors. To test for equal access to conference calls, an average trade size metric, volume divided by the number of transactions, is analyzed. Average trade size is higher during the time of the conference calls, indicating that large investors are using these selective disclosures. The SEC Regulation Selective Disclosure and Insider Trading (2000) references this study in footnote 144 as an example of the need for a level access to information.

8-K Research

Research examining the information content of Form 8-K filings has produced mixed results (e.g., Pastena [1979], Fried and Schiff [1981], Johnson and Lys [1990], and Carter and Soo [1999]). The majority of studies testing the usefulness of Form 8-K filings focus on the disclosure of auditor changes. However, studies have also investigated unusual charges (Pastena 1979) and foreign-sensitive payment disclosures (Smith et al. 1984). Only one study, Carter and Soo (1999), perform aggregate testing across all 8-K disclosure items. The mixed results are partially explained by the difficulty in identifying the appropriate event dates and controlling for confounding disclosures.

Pastena (1979) is the first study to examine if stock prices react to 8-K filings. He relies on Hakansson's (1977) theory that mandatory interim disclosures will be beneficial to financial statement users, especially those who lack access to "inside information." In 1973, registrants were required to disclose material developments

immediately through informal press releases and to provide a more detailed disclosure in approximately one month in Form 8-K.[9] Using three-day event windows around both the press release and the SEC filing, Pastena finds a significant price response to unusual events for only the press releases.[10] He concludes that the market has already fully reacted to the new information by the time of the 8-K filing.

Smith et al. (1984) investigate how common stock investors interpret foreign-sensitive payment disclosures. The authors identify the event date as the earlier of the date received stamp on the 8-K, the date indicated in the 8-K text, or the date disclosed in The Wall Street Journal. Significant negative abnormal returns are detected on the day prior to and the day of the disclosure.

Fried and Schiff (1981) began a line of research examining the general question of whether CPA switches are associated with significant market reactions. In 1971, the SEC required an 8-K filing within 15 days of a change in the registrant's certifying accountant. They also required registrants to describe any disagreements with the CPA firms occurring within the previous 18 months. Fried and Schiff use 8-K filings dates as announcement dates. Their results for both 21- and 49- week abnormal returns surrounding the event week show that the 8-K disclosure of auditor disagreements is not informative. Only a small effect is detected for the auditor switches.

---

[9] In 1973, the 8-K must be filed within ten days subsequent to the close of the month in which a designated material event occurred.

[10] Unusual events were expanded by Accounting Series Release 138 to include "material write-downs of inventories, receivables, or deferred R&D costs, provisions for loss on major long-term contracts or purchase commitments, and losses on disposition of assets or business segments."

Smith and Nichols (1982) also test the usefulness of the SEC requirements for disclosure of auditor firm disagreements. Smith and Nichols improve the Fried and Schiff (1981) design by eliminating firms with confounding Wall Street Journal articles or earnings announcements. They also use a one week test window, a matched pair design of other auditor switching firms (without disagreements), and a larger sample size. A statistically significant difference in market reaction is observed between the disclosure and non-disclosure firms using the 8-K stamp date as the event week.

Johnson and Lys (1990) test for abnormal returns to auditor realignments filings. The authors do not control for the presence of contemporaneous 8-K disclosures (such as technical defaults, election of directors, etc.) because they are unlikely to be independent of auditor change. Therefore, daily excess returns capture the combined effects of auditor realignment and concurrent events. No abnormal daily returns are documented on day 0 or days –1, 0, +1 for switching firms. In addition, the results are not sensitive to auditor disagreements. Johnson and Lys conclude that auditor changes provide little information that is relevant for the pricing of securities.

Klock (1994) models the daily abnormal returns of 8-K auditor change filings using three separate event dates. He states it is not always clear what date the information becomes known to the market. First, he locates the date disclosed within the 8-K on which the auditor is formally terminated. Second, he records the 8-K stamp or filing date. Third, he uses the on-file date (when the 8-K becomes available in the public reference room at the SEC), which is usually 0-3 days after the second event date. None

of the returns are significant at conventional levels, suggesting that the investing public does not believe there is new information in auditor switches.

Schwartz and Soo (1995) test 8-K disclosures of auditor changes by firms approaching bankruptcy. They examine if these filings provide useful information such as alerting investors and regulators of impending bankruptcy. Bankrupt firms are more likely to miss 8-K deadlines and report bad news events (e.g.., reporting disagreements). The researchers examine The Wall Street Journal Index to see if auditor changes are reported prior to the filing date. No abnormal returns are found for either the event date (date of auditor change reported in the 8-K) or the filing date (date the 8-K filed with the SEC) over the seven days surrounding each date.

DeFond et al. (1997) assert that auditor resignations differ from other auditor changes and test this using two event windows. The first window is the day of the auditor change through the day before the 8-K is filed. The second window runs from the 8-K filing date plus four more days. A significant negative reaction is found for only the resignation firms in the first event window. Both types of changes are negative and significant in the second event window. The authors conclude that the distinction between resignations and dismissals is meaningful, but that news of resignations frequently reaches the market before Form 8-K is filed.

Wells and Loudder (1997) examine the market response to auditor changes distinguishing between auditor resignations and dismissals. Abnormal returns are examined using a two day event period with the SEC Form 8-K stamp date as day zero. Significantly negative returns are found only when auditors resign.

In the most comprehensive examination to date of 8-K filings, Carter and Soo (1999) investigate the timeliness of and stock price reaction to a 1993 sample of 5,736 filings. In tests without regard to the type of disclosure, Carter and Soo find a price response to both the event date and the filing date.[11] Additional cross-sectional tests are performed based on the size of the firm, exchange listing, filing compliance, and filing lag. A significant price reaction is found only for the smallest firms, listed on NASDAQ, filed on time, and with a filing lag of less than seven days. These findings are consistent with Pastena (1979) in that delayed filings are being preempted by more timely sources. Carter and Soo (1999) do not examine the type of investor response to 8-K event dates.

Shu (2000) investigates the information content of auditor resignations reported on Form 8-K. She finds a significant negative three-day return of 3.11% for days -1, 0, and +1. Day 0 is defined as the first trading day after the filing (stamp) date of the 8-K announcing the auditor resignation. Shu concludes that investors react negatively to auditor resignations.

Whisenant et al. (2003) examine disclosures of auditor changes included in Form 8-K filings. The SEC requires registrants to disclose when auditors advise clients of internal control weaknesses or material financial statement reliability issues.

[11] The event date is the circumstance that requires the filing of an 8-K (e.g., the date a registrant purchases another company). The filing date is the day the SEC received the Form 8-K.

Each type of disclosure is tested using both three-day (-1,0, +1) and seven-day (-5 to +1 day) windows. Whisenant et al. find a significant negative stock price reaction to disclosures of reportable events but not to internal control disclosures, and suggest that these events may be predictable to investors.

CHAPTER III

FORM 8-K FILINGS

The SEC requires that an electronic Form 8-K be filed for certain events not previously disclosed in Form 10-K or 10-Q. The events are: Changes in Control of Registrant (Item 1); Acquisition or Disposition of Assets (Item 2); Bankruptcy or Receivership (Item 3); Changes in Registrant's Certifying Accountant (Item 4); Other Events (Item 5); Resignations of Registrant's Directors (Item 6); Financial Statements and Exhibits (Item 7); Change in Fiscal Year (Item 8); and Regulation FD Disclosure (Item 9). Item 5 disclosures are voluntary. They include other unspecified events deemed important and can include lawsuits, securities issuances, earnings announcements, and credit rating changes. Overall, 8-Ks contain important accounting information, which should be useful to investors.[12]

SEC rules require 8-K filings for items 1, 2, 3, or 8 to be made within fifteen calendar days after the occurrence of a triggering event. For items 4 and 6 the disclosure must be made within five business days. The voluntary disclosures under item 5 have no filing date requirements. In August 2002, the SEC proposed to provide investors with better and faster disclosure of important corporate events (SEC Proposed Rule: Additional Form 8-K Disclosure Requirements and Acceleration of Filing Date).

---

[12] Previous research studies have focused on the differential use of earnings announcements (Cready 1988 and Lee 1992) and annual report filings (Cready and Mynatt 1991) by large and small investors. Both earnings announcements and the filing of annual or quarterly financial statements under item 5 of the Form 8-K will be eliminated from my sample.

Eleven new items were added to the 8-K disclosures (e.g., material impairments and restructurings) and the filing date was reduced to two business days.

The filing of an 8-K will have either two or three separate events. The event date (ED) is the circumstance that requires the filing of an 8-K (e.g., the day a registrant disposes of a significant amount of assets). The 8-K filing itself is an event and will be noted as the filing date (FD), which is the date the Form 8-K is received by the SEC. The ED and the FD can be on the same day or the FD can follow from one day to several months later. A third event is the announcement date (AD), which is the date a press release or newspaper article discloses the event. The AD can also occur before, concurrently with, or after the ED and FD. Every 8-K filing will include an ED and a FD. An AD may or may not occur because it is an elective disclosure by the registrant.

Figure 1 presents each combination based on the perspective of individually testing each of the three separate events. Ten possible combinations can occur involving the ED and FD which are shown in Panel A, while eight combinations are associated with the AD in Panel B. Each possible combination is presented in the same order for each of the three events (ED, FD, and AD). A dash mark (-) indicates a separation of two events by several days, while a slash (/) a concurrent event. For example, ED – FD is an event date preceding a filing date and ED – FD / AD is an event date preceding a concurrent FD and AD. Each event can be tested individually as shown in Section 1 of Panels A and B. Concurrent events such as an ED and FD occurring on the same day are combined and tested as shown in Sections 2 and 3.

Figure 1. Analysis of the Event, Filing, and Announcement Date Combinations[a]

Panel A: Event and Filing Date Combinations

	EVENT DATES (ED)		**FILING DATES (FD)**
Section 1		***Section 1***	
All Event Dates Tested Alone	**ED** – FD	All Filing Dates Tested Alone	ED – **FD**
	ED – FD / AD		Na
	ED – FD – AD		ED – **FD** – AD
	ED – AD – FD		ED – AD – **FD**
	Not Applicable (na)		ED / AD – **FD**
	na		na
	na		na
	AD – **ED** - FD		AD – ED – **FD**
Section 2		***Section 2***	
ED concurrent with a FD	**ED / FD**	FD concurrent with an ED	**ED / FD**[b]
	ED / FD – AD		**ED / FD**[b]– AD
	AD – **ED / FD**		AD – **ED / FD**[b]
Section 3		***Section 3***	
ED concurrent with an AD	**ED / AD** – FD	FD concurrent with an AD	na
	ED / AD / FD		**ED / AD / FD**[b]
	na		ED – **FD / AD**

Panel B: Announcement Date Combinations

	ANNOUNCEMENT DATES (AD)
Section 1	
All Announcement Dates Tested Alone	na
	na
	ED – FD – **AD**
	ED – **AD** – FD
	na
	ED / FD – **AD**
	AD – ED / FD
	AD – ED – FD
Section 2	
ED and FD concurrent dates	na
	na
	na
Section 3	
AD concurrent with an ED or a FD	**ED / AD**[b] – FD
	ED / AD / FD [b]
	ED – **FD / AD**[b]

[a] All possible scenarios involving EDs, FDs, and ADs are organized based on if the events will be tested alone (Section 1) or in combination with another event (Sections 2 and 3). A dash mark (-) indicates a separation of two events by several days, while a slash (/) a concurrent event (e.g., ED – FD is an event date preceding a filing date, ED – FD / AD is an event date preceding a concurrent FD and AD).

[b] These event combinations are identical to previously listed combinations.

CHAPTER IV

RESEARCH DESIGN

My investigation begins with all Form 8-Ks filed with the SEC in 1993.[13] In order to identify if an AD exists relating to the ED, I examine both the SEC filed 8-K and an information database.[14] Next, I generate a proxy for the relative trading activity of different investor groups. Finally, I identify five unique informational settings in which 8-K filings occur.

Relative Trading Response Design

Relative trading activity can be used to proxy for the type of investor, that is, large versus small traders, and is measured using mean transaction size in shares (Cready 1988, Cready and Mynatt 1991, Brackney and Cready 1999, Frankel et al. 1999). Mean transaction size (MEANTRS) is calculated as

$$MEANTRS_{it} = DAYVOL_{it} / DTRANS_{it}, \quad (1)$$

where

$DAYVOL_{it}$ = the total volume in firm i's stock on day t,
$DTRANS_{it}$ = the daily number of transactions occurring in firm i's stock on day t.

I will use an ordinary least squares (OLS) regression model to estimate the expected mean transaction sizes using the regression

---

[13] This is the same initial sample used by Carter and Soo (1999) to test the relevance of Form 8-K reports.

[14] The wires files of Lexis-Nexis were searched for a period of five days before the ED and five days after the FD to determine if and when the company issued a press release relating to the 8-K event. Similar to Dodd et al. (1984) and Dopuch et al. (1986) I use a press release source (like the broad tape) to circumvent the editorial selection process of The Wall Street Journal or other news services.

$$MEANTRS_{it} = a_i + b_i\,(DAY_t) + e_{it}, \qquad (2)$$

where

$MEANTRS_{it}$ = the mean transaction size in shares for transactions occurring in firm i's stock on day t,
DAY_t = the trading day per the daily CRSP tape,
a_i = regression specific estimated intercept term for firm i,
b_i = regression specific estimated slope term for firm i, and
e_{it} = the regression specific error term.

The OLS regression is designed to estimate any trend in MEANTRS. Unexpected mean transaction size is then estimated as

$$UMEANTRS_{it} = (MEANTRS_{it} - MEANTRS^{HAT}_{it}) \qquad (3)$$

where

$MEANTRS^{HAT}$ = the expected mean transaction size in shares based on the intercept and slope parameters from equation (2).

The expectations model is estimated using all trading days in 1993 excluding the event period windows. Each firm's actual, expected, and unexpected mean transaction size is then standardized by the following equation

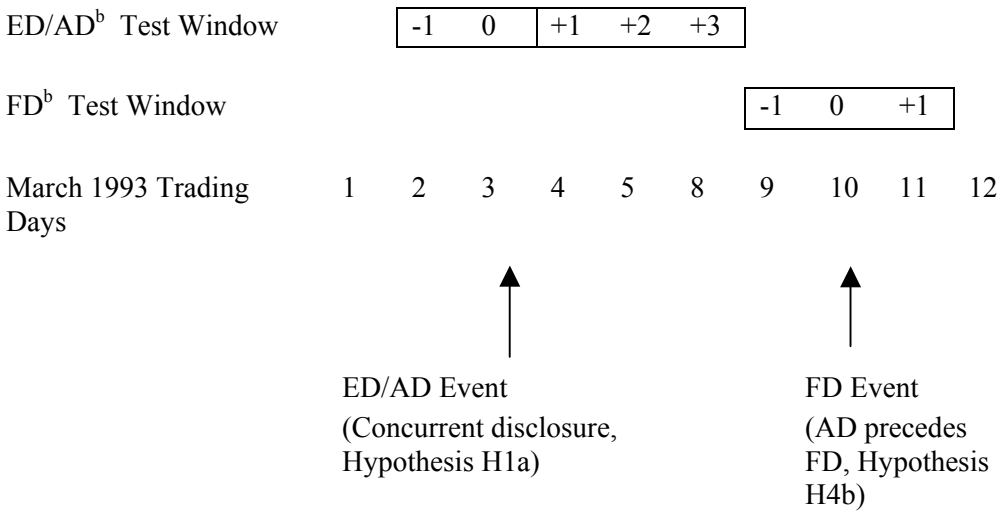
$$SMEANTRS_{it} = MEANTRS * \left\langle 1/STNDDEV_i \Big/ \sum 1/STNDDEV_i \right\rangle * N \qquad (4)$$

where

$SMEANTRS_{it}$ = the standardized actual $MEANTRS_{it}$, expected $MEANTRS^{HAT}_{it}$, and unexpected $UMEANTRS_{it}$,
$STNDDEV_i$ = the standard deviation of the error terms from equation (2), and
N = the sample size.

Each hypothesis will be tested using cross-sectional t-tests with an overall event period window (-1, 0, +1, +2, +3, +4).[15] For example, in the disclosure scenario where an ED and an AD occur on the same day and are followed by a FD, the hypotheses will be tested as shown in Figure 2. Any of the three events that occur within one day of each other will be considered to have occurred together. For example, if an ED occurs one day before a FD, the two events will be combined with the first event being day zero in the analysis period. If three events occur on three consecutive trading days the middle event date will generally be day zero in the analysis period.

Figure 2. Example of 8-K Testing Windows[a]



[a] Testing windows for a disposition of a corporate asset (8-K item 2) and the issuance of a press release the same day (concurrent disclosure), preceding a FD five trading days later.

[b] ED = Event date, FD = Filing date, and AD = Announcement date.

[15] The length of some event windows will differ based on the type of disclosure. See Hypothesis Section.

Lee (1992) and Bhattacharya (2001) find that almost 95 percent of trading responses for both small and large trades occur within three days of the earnings announcement. Cready and Mynatt (1991) analyzed investor trading surrounding annual report filings for 1981 to 1983 fiscal year ends. They find a trading response for individual traders concentrated in the day +3 to +7 period on paper filings of annual reports with the SEC made over a decade before my sample year of 1993.[16]

Hypotheses

Based upon a review of the 8-K filings, the event period window described above, and my research questions, the ten combinations of the three event dates can be further classified into five main disclosure settings. The disclosure settings will be designated as: 1) Concurrent first, 2) Event first, 3) AD preceding FD, 4) FD preceding AD, and 5) Other. Figure 3 provides a listing of the five disclosure settings and a linkage to the hypothesis tests. In each disclosure setting the ED, FD, and AD events are combined and listed by their separate hypotheses. Certain tests are conditional on previous tests. Also, the event window's size (in days) will change based on which combination is being tested. Both of these are explained within the unique disclosure settings.

[16] The event period window length becomes an empirical trade off between sample size and power versus using filing dates that are past their statutory due dates. Carter and Soo (1999) find a price response only on 8-K filings that are made on time (or with a filing lag of seven days or less).

Figure 3. Summary of Disclosure Settings and Linkage to Hypothesis Tests

Panel A: Hypothesis H1 to H3

				EVENT WINDOW TESTS		
	Events	HO	Conditional On Previous Hypothesis	Days −1 to +1	Days +2 to +4	Days −1 to +3
Concurrent	ED / AD / FD[a]	H1a	-	> 0	< 0	-
First	*ED / AD* – FD	H1a	-	> 0	< 0	-
Setting	ED / FD	H1b	-	> 0	-	-
	ED / FD – AD	H1b	-	> 0	-	-
Event First	*ED* – FD	H2	-	-	-	> 0
Setting	*ED* – FD / AD	H2	-	-	-	> 0
	ED – FD – AD	H2	-	-	-	> 0
	ED – AD – FD	H2	-	-	-	> 0
FD Precedes AD Setting	*Tests of FD Events:*					
	ED – **FD** – AD	H3a	If (H2) UMEANTRS > 0	?	-	-
	ED – **FD** – AD	H3a	If (H2) UMEANTRS = 0	> 0	-	-
	Tests of AD Events:					
	ED – FD – ***AD***	H3b	If (H2 or H3a) UMEANTRS > 0	-	< 0	-
	ED – FD – ***AD***	H3b	If (H2 or H3a) UMEANTRS = 0	> 0	< 0	-
	ED / FD – ***AD***	H3c	If (H1b) UMEANTRS > 0	-	< 0	-
	ED / FD – ***AD***	H3c	If (H1b) UMEANTRS = 0	> 0	< 0	-

[a] ED = Event date, FD= Filing date, and AD = Announcement date.

Figure 3. (Continued)

Panel B: Hypothesis H4 to H6

				EVENT WINDOW TESTS		
	Events	HO	Conditional On Previous Hypothesis	Days −1 to +1	Days +2 to +4	Days −1 to +3
Announcement Preceding Filing Date Setting	*Tests of AD*[a] *Events:*					
	ED – ***AD*** – FD	H4a	If (H2) UMEANTRS > 0	-	< 0	-
	ED – ***AD*** – FD	H4a	If (H2) UMEANTRS = 0	> 0	< 0	-
	Tests of FD Events:					
	ED – AD – ***FD***	H4b	If (H2 or H4a) UMEANTRS ≠ 0	?	-	-
	ED – AD – ***FD***	H4b	If (H2 or H4a) UMEANTRS = 0	> 0	-	-
	ED / AD – ***FD***	H4c	If (H1a) UMEANTRS ≠ 0	?	-	-
	ED / AD – ***FD***	H4c	If (H1a) UMEANTRS = 0	> 0	-	-
	ED – ***AD / FD***	H5a	If (H2) UMEANTRS > 0	-	< 0	-
Other Disclosure Setting	ED – ***AD / FD***	H5a	If (H2) UMEANTRS = 0	> 0	< 0	-
	ED – ***FD***	H5b	If (H2) UMEANTRS > 0	?	-	-
	ED – ***FD***	H5b	If (H2) UMEANTRS = 0	> 0[b]	-	-
	AD – ED / FD	H6a		> 0	< 0	-
	AD – ED – FD	H6a		> 0	< 0	-
	AD – ***ED / FD***	H6b	If (H6a) UMEANTRS ≠ 0	?	-	-
	AD – ***ED / FD***	H6b	If (H6a) UMEANTRS = 0	> 0	-	-
	AD – ***ED*** – FD	H6c	If (H6a) UMEANTRS ≠ 0	?	-	-

[a] ED = Event date, FD = Filing date, and AD = Announcement date.

Concurrent Disclosure Settings

In the first concurrent disclosure setting the event date, filing date, and announcement date occur concurrently.[17] The first hypothesis (H1a) examines disclosure settings that include a press release (AD). Cready (1988) and Lee (1992) suggest that institutional investors react more quickly than small individual investors to accounting news. Therefore, the first hypothesis (H1a) predicts a differential trading activity that includes more large traders (UMEANTRS > 0) followed more small traders (UMEANTRS < 0). Radhakrishna (1998) finds institutional reaction to earnings announcements is virtually instantaneous while individuals lag in their trading response. Consequently, the differential trading activity (UMEANTRS > 0) will be tested using event days –1 to +1, while the differential trading activity (UMEANTRS < 0) will use days +2 to +4.

The second concurrent disclosure setting does not have a concurrent AD. In hypothesis (H1b), I test for an investor response to a concurrent ED and FD. Carter and Soo (1999) find a price reaction to timely filed 8-Ks (FD) but do not examine usage by investor type. Institutional investors dedicate substantial resources to information search (Potter 1992). Accordingly, institutional investors are more likely to follow 8-K filings (without public announcements). I predict an UMEANTRS > 0 for H1b using event days –1 and +1.

[17] The SEC Fair Disclosure Act requires companies to file either an 8-K or other method of broad public access (such as a press release) within 24 hours of an unintentional disclosure of material non-public information. Both concurrent disclosure settings would be similar to the SEC requirement.

Event First Disclosure Setting

This disclosure setting results when a FD or AD does not immediately follow the event that initiates the filing of an 8-K, that is, the registrant waits several days before filing an 8-K or issuing a press release. The second hypothesis (H2) is a test of trading activity at the event date (ED). Carter and Soo (1999) find a price reaction to the ED; however their methodology deleted only firms with a FD within two days of the ED. I use five days, resulting in a cleaner test because the possibility of the influence of confounding events will be less. My design allows a test of information dissemination when no public filing or announcement has occurred. "When selective disclosure leads to trading by the recipients of the disclosure or trading by those whom these recipients advise, the practice bears a close resemblance to ordinary "tipping" and insider trading. The economic effects of the two practices are essentially the same; in both cases, a few persons gain an informational edge - - and use that edge to profit at the expense of the uninformed (SEC Fair Disclosure Act, p. 21)."[18] Since no public information is available, I expect that if differential trading activity is found on days –1 to +3, it will be found in the more informed institutional proxy (UMEANTRS > 0).

The differential trading activity to the third, fourth, and fifth disclosure settings (FD precedes AD, AD precedes FD, and Other) may be conditional on the findings in H1a, H1b, H2, H3a, H4a, or H6a.

[18] SEC Final Rule: Selective Disclosure and Insider Trading, Section V. Cost-Benefit Analysis, Part A Regulation FD: Selective Disclosures, Section 1. Benefits.

For example, an ED followed by an AD and then by a FD, the expected differential trading activity to the AD changes based on the trading observed to the ED. This can occur because the investors may have already fully reacted to the new information by the time the subsequent AD or FD is disclosed (Pastena 1979).

Filing Preceding Announcement Date Disclosure Setting

This disclosure setting occurs when the FD precedes the AD. It is expected that this disclosure setting will contain the least observations in my sample. Hypothesis H3a examines a sequential disclosure setting of an ED followed by a FD followed by an AD. H3a tests the FD. Here the predictions are conditional on the markets response to the ED (H2). If large investors relative to small trade on the ED (UMEANTRS > 0) then it is uncertain what relative type of trading activity will occur at the FD (most likely none, therefore no prediction is made for UMEANTRS). However, if no relative activity is detected at the ED then an UMEANTRS > 0 is predicted at the FD using event days –1 to +1.

Hypothesis H3b tests the AD portion of the ED followed by FD followed by AD combination. An UMEANTRS > 0 is expected at the ED (H2) and or the FD (H3a); therefore an UMEANTRS < 0 is expected at the subsequent AD (days +2 to +4).

Another combination of the third disclosure setting is an AD that follows a concurrent ED and FD (H3b). Since a differential trading activity including more large traders is predicted on the concurrent ED and FD (as in H1b) a subsequent public announcement will attract a higher proportion of small traders. As a result, an UMEANTRS < 0 is predicted using event days +2 to +4.

Announcement Preceding Filing Date Disclosure Setting

This disclosure setting occurs when the AD precedes the FD. Hypothesis H4a examines a sequential disclosure setting of an ED followed by an AD followed by a FD. H4a tests the AD. Here the predictions are conditional on the differential trading activity to the ED (H2). If relatively more large investors trade on the ED (UMEANTRS > 0) then an UMEANTRS < 0 is predicted at the AD using event days +2 to +4. Alternatively, if no relative activity is detected at the ED then an UMEANTRS > 0 followed by an UMEANTRS < 0 (similar to H1a) is expected using days –1 to +1 and +2 to +4, respectively.

Hypothesis H4b tests the FD of a disclosure setting where the ED is followed by an AD followed by a FD. Since investors can react to both the ED (H2) and the AD (H4a) little or no relative trading is expected at the FD.[19]

Disclosure setting four can also have an FD that follows a concurrent ED and AD (H4c). A large followed by a small differential trading activity is predicted on the concurrent ED and AD (H1a). Any subsequent FD is not expected to have a differential trading activity (unless it contains new information, in which case UMEANTRS > 0 is predicted.

Other Disclosure Setting

This disclosure setting (Other) contains the remaining untested events. In hypothesis H5a, I test a concurrent AD and FD that follows an ED.

---

[19] Unless the FD contains additional useful information then UMEANTRS > 0 is expected.

Similar to the disclosure settings above, the expectations are conditional on the differential trading activity to the ED. If more large investors relative to small investors are observed at the ED (UMEANTRS > 0, as in H2), then an UMEANTRS < 0 is predicted at the FD / AD using event days +2 to +4. Alternatively if no relative activity is detected at the ED, then an UMEANTRS > 0 followed by an UMEANTRS < 0 (similar to H1a) is expected using days –1 to +1 and +2 to +4, respectively.

Hypothesis 5b examines the scenario where a FD follows an ED. This may be the most common type of filing. Again, the prediction is conditional on the ED activity. A large differential trading activity is predicted on the ED (H2). Any subsequent FD will not have a differential trading activity (UMEANTRS=? for days -1 to +1, unless it contains new information and then an UMEANTRS > 0 would occur). Alternatively, if no differential trading activity is detected at the ED then an UMEANTRS > 0 is expected on days –1 to +1.

A final combination of events contains an AD preceding the ED and FD. Registrants may in some situations disclose an event before it occurs.[20] In hypothesis 6a, I test for differential trading activity to such an announcement. Consistent with H1a a large relative trading activity (UMEANTRS > 0) will be tested using event days –1 to +1, while the small relative trading activity (UMEANTRS < 0) will use days +2 to +4.

[20] For example, a corporation preparing to issue equity or debt securities may issue a press release several days prior to the sale attempting to increase the demand for its offering.

Hypothesis 6b examines the scenario where a concurrent ED and FD follow an AD. The predicted trading activity to the ED/FD is conditional on the relative investor's observed activity to H6a on the AD. A large followed by small differential trading activity is predicted on the AD, therefore any subsequent ED/FD will not have a trading response (UMEANTRS=? for days -1 to +1, unless it contains new information and then an UMEANTRS > 0 would occur). Alternatively, if no relative trading activity is detected at the AD then an UMEANTRS > 0 is expected on days –1 to +1. Finally, in the combination AD – ED – FD the predictions are the same as H6b.

CHAPTER V

EMPIRICAL RESULTS

Sample Selection Procedure

My investigation begins with all Form 8-Ks filed with the SEC in 1993.[21] All amendments to previous reports, duplicates, reports with missing dates, and identical or similar filings made by related companies are excluded. A firm may file more than one Form 8-K in 1993. An initial sample of 1,966 firms who filed 3,209 reports results from this procedure.

Five selection screens are used to determine the initial sample size for the disclosure scenarios. I reduce the sample for firms that have: (1) no available CUSIP or trading information, or material changes in outstanding shares;[22] (2) less than eight transactions per day; (3) less than 105 days available for estimation of mean trade sizes; (4) events or announcements occurring in 1992 or 1994; and (5) filings not meeting any of the disclosure setting requirements. The first two screens are needed because changes in outstanding shares and thinly-traded issues affect volume and trading statistics as well as tests of significance. Screen (3) assures that there are at least 100 observations for the time-series regressions used to estimate the expected mean trade size, while the fourth screen eliminates event dates outside the 1993 calendar year. The final screen eliminates any combinations of the ED, AD, and FD that do not fall into one of the five disclosure

---

[21] This is the same initial sample used by Carter and Soo (1999) to test the information content of Form 8-K filings.

[22] A material change is defined as any change in outstanding shares between January 4, 1993 and December 31, 1993 of more than ten percent

settings as described above. The use of these criteria resulted in a final sample of 523 firms with 743 filings as shown in Table 1.

Table 1. Sample Selection Criteria

	Firms	Filings
All Form 8-Ks filed in 1993 excluding duplicates, amendments, and missing information	1,966	3,209
Delete observations with missing CUSIPs, transaction information, or material changes in outstanding shares	(773)	(1,320)
	1,193	1,887
Delete firms that have fewer than eight transactions per day	(360)	(510)
	833	1,377
Delete firms with less than 105 days available for estimation of the mean trade size	(130)	(231)
	703	1,146
Delete firms 1992 event or announcement dates	(41)	(78)
	662	1,068
Less filings not meeting at least one of the disclosure setting requirements	(186)	(395)
Overall disclosure setting sample	476	673

The overall disclosure setting sample size is divided among the five disclosure settings: Concurrent first, 2) Event first, 3) AD preceding FD, 4) FD preceding AD, and 5) Other. An 8-K filing can be placed into more than one disclosure setting. For example, an event date followed by an 8-K filing, ED – FD, will be in both disclosure setting two and five. The ED will tested in the event first disclosure setting and the FD will be tested in the other setting. Table 2 details the number of firms and filings by the five disclosure settings. Two additional screens are necessary to test hypotheses H1a-H6c. Firms with no trading information or missing trading information during the event windows are eliminated. The concurrent first setting contains the most filings (356), while no observations existed for the disclosure setting where filing dates precede announcement dates. In addition, the sample sizes for hypotheses H4a, H4b, H5a, H6a, H6b, and H6c are very small, so no relative trading tests are performed on these hypotheses.

Table 2. Sample Sizes by Disclosure Setting

	Firms[a]	Filings
Setting 1) Concurrent first (ED/FD/AD, ED/AD – FD and ED/FD)[b]	400	491
Less firms filing earnings announcements or financials	(47)	(67)
Less firms with no trading information during the event windows	(30)	(46)
Less firms with missing observations during the event windows	(19)	(22)
	304	356
Setting 2) Event first (ED - FD, ED – FD- AD, ED – FD/AD, and ED - AD - FD)	137	165
Less firms filing earnings announcements or financials	(1)	(1)
Less firms with no trading information during the event windows	(15)	(28)
Less firms with missing observations during the event windows	(11)	(11)
	110	125
Setting 3) FD precedes AD (ED - FD - AD and ED/FD - AD)	0	0
Setting 4) AD Precedes FD (ED - AD - FD and ED/AD - FD) (H4b filings only)[c]	190	221
Less firms filing earnings announcements or financials	(12)	(17)
Less firms with no trading information during the event windows	(23)	(29)
Less firms with missing observations during the event windows	(17)	(17)
	138	158
Setting 5) Other (ED - AD/FD, ED – FD, AD – ED/FD and AD – ED - FD) (H5b filings only)[c]	117	142
Less firms filing earnings announcements or financials	(1)	(1)
Less firms with no trading information during the event windows	(11)	(20)
Less firms with missing observations during the event windows	(11)	(11)
	94	110

[a] Firms can have multiple filings within the year. Also, a filing can be placed into more than one disclosure setting (e.g., an event date followed by an 8-K filing, ED – FD, will be in both disclosure setting two and five).

[b] ED = Event date, FD = Filing date, and AD = Announcement date. A dash mark (-) indicates a separation of two events by several days, while a slash (/) a concurrent event.

[c] The number of 8-K (firms, filings) for hypotheses H4a, H4b, H5a, H6a, H6b, and H6c are (2, 2), (2, 2), (10, 10), (15, 16), (9, 10), and (6, 6), respectively. Due to the inadequate sample sizes, no testing will be performed on these observations.

Descriptive Statistics

Table 3 provides descriptive statistics on trading metrics, filings by individual 8-K items, and number of 8-Ks filed by firm.[23] In Panel A, the average transaction size in shares is 1,825. This average is higher than Cready (1988) and Cready and Mynatt (1991) who used samples from the early 1980's. Average transaction sizes rose between their time period and mine. The average shares per reported trade from the NYSE 2001 fact book for the full year 1988 were 2,303. This average is for the larger NYSE companies only. My sample includes many firms on the Nasdaq and AMSE exchanges which have less overall volume and liquidity.

Table 3, Panel B, analyzes the filings by type of 8-K event. Two-thirds of all filings are included in the "other" item, which includes unspecified events deemed important and can include lawsuits, securities issuances, credit-rating changes, and earnings announcements. Almost twenty percent of the filings report the acquisition or disposition of assets. Observed dispersion of filings of 8-K items is similar to Carter and Soo (1999).

[23] The data used to calculate the expected and actual mean transaction sizes comes from the Trade and Quote (TAQ) database. TAQ contains intraday transaction data (trades and quotes) for all securities listed on the New York Stock Exchange (NYSE) and American Stock Exchange (AMEX), as well as Nasdaq National Market System (NMS) and Small Cap issues. Information on the outstanding number of shares, listed stock exchange, market returns, and market capitalization for each company comes from the Center for Research in Securities Prices (CRSP).

Table 3. Descriptive Statistics for 476 Firms and 673 8-K Filings for 1993

Panel A: Continuous Variables

Variable	Mean	Standard Deviation	Minimum	Maximum
Average Daily Trading Volume in Shares	158,984	312,822	3,652	3,451,601
Average Number of Transactions	85.25	181.31	8.12	2,731.56
Mean Transaction Size in Shares	1,824.6	1,006.5	351.4	11,220.8
Average Daily Percentage Volume	0.5513%	0.5067%	0.0087%	4.0142%

Panel B: Number of Form 8-K Filings by Type of Event

8-K Item	Number of Observations	Percentage of Total Filings
Item 1: Changes in Control	10	1.49
Item 2: Acquisition or Disposition of Assets	134	19.91
Item 3: Bankruptcy or Receivership	3	0.45
Item 4: Changes in Certifying Accountants	15	2.23
Item 5: Other Important Events	451	67.01
Item 6: Resignations of Directors	3	0.45
Item 7: Other Exhibits	56	8.32
Item 8: Change in Fiscal Year	1	0.15
Total	673	100.00

Panel C: Number of 8-K Filings by Firm

Number of 8-Ks Filed	Number of Observations	Percentage of Total Filings
One	413	61.37
Two	141	20.95
Three	58	8.62
Four	24	3.57
Five	15	2.23
Six	6	0.89
Seven	4	0.59
Eight	3	0.45
Nine	2	0.30
Ten	1	0.15
Eleven	1	0.15
Twelve	1	0.15
Thirteen	1	0.15
Fourteen	1	0.15
Fifteen	1	0.15
Seventeen	1	0.15
Total	673	100.00

Each firm can file more than one Form 8-K during the 1993 calendar year. In Table 3, Panel C, the number of filings per firm is detailed. Over ninety percent of the firms filed one to three Form 8-K filings in 1993. The extreme was seventeen filings for one registrant.

Relative Trading Response

Separate analyses are performed on each of the five disclosure settings detailed in Tables 4 - 8. The table on p. 46 contains the analysis of relative trading by type of 8-K item filed. The relative trading activity is used to proxy for the type of investor and is measured using mean transaction size in shares.

Concurrent Disclosure Setting

Concurrent disclosures have an ED combined with either a FD, AD or both. Table 4 reports standardized mean differences in actual less expected mean transaction sizes for the concurrent disclosure setting. Panel A reports results for H1a, which includes concurrent disclosures that include an AD, while Panel B reports results for H1b disclosures containing only a FD. The first hypothesis, H1a, includes two separate event windows. The first test uses days -1 and +1 and predicts an unexpected mean transaction size > 0. The unexpected mean difference is positive but not significant. A more detailed analysis of the individual trading days relative to the event day shows an unexpected negative mean difference on day -1. This result is not predicted.

Three possible causes of the negative unexpected mean transaction size exist. First, larger traders relative to small are waiting until the ED/AD to transact. A dearth takes place in large trading. Second, small traders relative to large transact more prior to

the event date. An upsurge in small investor trading happens. Third, a combination of the first two explanations occurs. This last possibility would be consistent with the Lee (1992) findings. He examined small and large traders' responses to earnings announcements and found "There is also some weak indication of directional imbalances in the preannouncement period which is positive for small traders but negative for large trades (Lee 1992, p 285)." I examined the unexpected volume on day's -4 to -1.[24] Unexpected volume can add insight to the negative mean transaction size on prior to the concurrent disclosure. Unexpected volume is not significant on any of these pre-event days. A significant decrease in the unexpected volume would be consistent with a drop in large institutional trades during these days. Because unexpected volume was not significant,

The second event window for H1a includes day +2 to +4 and also has an unexpected result. Prior literature has shown an increase in small investor trading relative to large investor trading several days after accounting information occurs.[25] My results show that over the second three day event window large traders are transacting on the concurrent disclosures.

---

[24] Unexpected volume was calculated in the as described in equations two and three in the Research Design Chapter.

[25] Sensitivity analysis was performed on each of the five testable hypothesis (H1a, H1b, H2, H4c, and H5b) using alternate length event windows. I tested days -1 to +5 and -1 to +10 where applicable. The results displayed in Tables 4 to 8 are qualitatively and quantitatively unchanged under any combination of these days.

Table 4. Differences in Average Actual and Expected Mean Transaction Sizes for Concurrent Disclosure Setting Testing the Event Day (ED)

H1a: ***ED / AD / FD*** and ***ED / AD*** – FD

H1b: ***ED / FD***

Panel A: H1a for 264 Observations

Days (Relative to Event Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t-Stat.
-1			1438.22	1522.22	-84.01**	-2.14
0			1599.75	1522.23	77.52*	1.36
+1			1592.35	1522.23	70.12*	1.39
+2			1705.42	1522.23	183.19**	2.19
+3			1507.19	1522.23	-15.04	-0.29
+4			1581.35	1522.24	59.11	0.84
-1 to +1	H1a	> 0	1543.44	1522.23	21.21	0.68
+2 to +4	H1a	< 0	1597.99	1522.23	75.75**	1.72

Panel B: H1b for 92 Observations

Days (Relative to Event Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t[b]-Stat.
-1			1504.94	1434.72	70.23	0.84
0			1605.42	1434.59	170.83	0.89
+1			1450.88	1434.47	16.40	0.21
-1 to +1	H1b	> 0	1520.41	1434.59	85.82	1.07

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

In the final test of the concurrent disclosure setting, H1b, I examine a concurrent disclosure that does not include an AD. The combined ED/FD event is not significant at

conventional levels. These results together suggest, except for the day -1 trading, that relative trading is dominated by large traders and this can only be documented where an AD exists.[26]

Table 5 reports additional sensitivity analysis for the concurrent disclosure setting hypothesis H1a. H1a contains both observations that include a combination of ED, AD, and FD. Panel A examines H1a where firms' earnings announcements (AD) are included in the sample, while Panel B separates the two possible event day combinations.[27]

When the event days ED/AD/FD are analyzed separately from ED/AD – FD, an odd result occurs. Trading begins again with an unexpected negative mean transaction size although it is only significant for the firms that do not have a concurrent FD. A significant differential trading activity is observed on day 0 when the concurrent disclosure includes a FD. When the disclosure does not contain a FD this response is delayed until day +2. Therefore, the only significant trading window is the Panel B days +2 to +4, which was not predicted.

---

[26] It cannot be determined if the AD is the defining difference in the two tests or if the smaller sample sizes have reduced the power to recognize relative trading differences. An alternative explanation is that firms with ADs are systematically different from firms without ADs.

[27] See Table 6 and H4c where the SEC filing (FD) is tested.

Table 5. Additional Analysis on Differences in Average Actual and Expected Mean Transaction Sizes for Concurrent Disclosure Setting for Hypothesis 1a Testing the Event Day (ED)

H1a: ***ED / AD / FD*** and ***ED / AD*** – FD

Panel A: H1a for 109 Observations of ***ED / AD / FD*** *Excluding* ***ED / AD*** *– FD*

Days (Relative to Event Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t-Stat.
-1			1506.11	1580.31	-74.21	-1.19
0			1760.43	1580.14	180.29**	1.80
+1			1649.36	1579.96	89.60	1.11
+2			1635.79	1579.78	56.01	0.72
+3			1647.45	1579.60	67.84	0.80
+4			1659.93	1579.42	78.51	0.57
-1 to +1	H1a	> 0	1645.36	1580.14	65.23	1.27
+2 to +4	H1a	< 0	1647.05	1579.60	67.45	1.07

Panel B: H1a for 155 Observations of ***ED / AD*** *– FD Excluding* ***ED / AD / FD***

-1			1391.20	1481.99	-90.79**	-1.79
0			1488.47	1482.12	6.35	0.10
+1			1538.87	1482.25	56.63	0.88
+2			1753.65	1482.38	271.27**	2.08
+3			1410.05	1482.50	-72.45	-1.13
+4			1528.31	1482.63	45.68	0.62
-1 to +1	H1a	> 0	1472.85	1482.12	-9.27	-0.23
+2 to +4	H1a	< 0	1564.00	1482.50	81.50*	1.35

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \Big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

Event First Disclosure Setting

Table 6 reports mean differences in actual less expected mean transaction sizes for the event first setting. For the ED - FD combination, I test only the ED. The event

requiring the filing of an 8-K has not been publicly disclosed through either an AD or FD. Therefore, this hypothesis tests the relative use of leaked or insider information. Carter and Soo (1998) found information content surrounding the ED. My results show no differential trading activity to the ED.

Table 6. Differences in Average Actual and Expected Mean Transaction Sizes for Event First Disclosure Setting for 125 Observations Testing the Event Day (ED)

H2: ***ED*** – FD

Days (Relative to Event Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t-Stat.
-1			1520.82	1426.92	93.90	0.94
0			1364.86	1426.60	-61.74	-1.09
+1			1447.39	1426.28	21.11	0.26
+2			1441.80	1431.41	10.40	0.09
+3			1477.17	1431.00	46.16	0.41
-1 to +3	H2	> 0	1455.81	1434.58	21.23	0.45

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \Big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

Announcement Preceding Filing Date Disclosure Setting

Table 7 reports mean differences in actual less expected mean transaction sizes for the Announcement Preceding Filing Date Disclosure Setting. For ED/AD - FD combination, I test only the FD. Differential trading activity to the last event (FD) of an ED/AD – FD combination is conditional on the activity to the first two combined events.

As shown in Table 3, the prediction for days -1 to +1 will be conditional on the H1a results. In Table 5, Panel B, a positive unexpected transaction size is observed in days +2 to +4. Since a differential trading activity is documented to the ED/AD, the subsequent FD will only produce a differential trading activity if this filing contains additional information. Unexpected mean transaction size is not significant at conventional levels. The results show no differential trading activity to an FD that occurs after an AD.

Table 7. Differences in Average Actual and Expected Mean Transaction Sizes for Announcement Preceding Filing Date Disclosure Setting for 158 Observations Testing the Filing Day (FD)

H4c: ED / AD – ***FD***

Days (Relative to Filing Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t-Stat.
-1			1604.42	1523.19	81.23	0.69
0			1607.42	1523.35	84.08	0.94
+1			1919.95	1523.50	396.45	1.54
-1 to +1	H4c	?	1710.60	1523.35	329.45	1.64

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

Other Disclosure Setting

Table 8 reports mean differences in actual less expected mean transaction sizes for the other disclosure setting. Table 8 tests the FD event occurring subsequent to an ED. A sample size of 110 filings results when examining the FD portion of an 8-K filing (ED – FD). H5b tests show no differential trading activity during the three day window -1 to +1. However, I observe a weakly significant negative differential trading activity on day -1 consistent with the negative response from the H1a announcements previously discussed.

Table 8. Differences in Average Actual and Expected Mean Transaction Sizes for Other Disclosure Setting for 110 Observations Testing the Filing Day (FD)

H5b: ED – ***FD***

Days (Relative to Filing Day)	Ho	Prediction	Average Actual Mean Tran. Size[a]	Average Expected Mean Trans. Size	Unexpected Mean Difference	t-Stat.
-1			1293.18	1394.51	-101.33*	-1.49
0			1338.08	1393.88	-55.80	-0.59
+1			1467.22	1389.76	77.46	0.69
-1 to +1	H5b	> 0	1366.92	1394.49	-27.57	-0.48

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \Big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

Relative Trading Response by Hypotheses by Item

Each 8-K filing is classified by the type of reporting event based on eight different items.[28] The relative use of 8-Ks by investors could be a function of what type of item is being filed. For example, sophisticated investors may be able to anticipate auditor resignations based on an analysis of publicly available litigation risk data (Boone and Raman 2001). Therefore, when an auditor change 8-K is filed by a registrant, large sophisticated investors may have already traded, possibly resulting in an unexpected mean size < 0 when small investors react.

Table 9 reports mean differences in actual less expected mean transaction sizes for each hypothesis by item. This sensitivity analysis is performed on all hypotheses were the sample size by item was greater than 30. As detailed in Table 2, Panel B, the most frequently filed items in the sample were (1) other important filings such as lawsuits, securities issuances, and credit rating changes (67%); and filings reporting the acquisition or dispositions of assets (19%). The results by item are similar to the results in Tables 4-8, but with two interesting observations. First, the H1a negative mean transactions sizes on day -1 seem to be driven by asset-type filings. Large institutional investors might be learning of acquisitions and dispositions of assets prior to their occurrence. This would be consistent with the lack of volume and decrease in large trades prior to announcement of these transactions.

[28] See Chapter III for additional detailed descriptions of the individual items.

Second, in H4c other important items are significant. This indicates that these miscellaneous types of filings are important to large traders.

Table 9. Differences in Average Actual and Expected Mean Transaction Sizes by Hypothesis by 8-K Item

Days (Relative to Event Day)	Ho	Prediction	8-K Item[a]	Sample Size	Mean Difference	t-Stat.
-1 to +1	H1a	> 0	Two	65	116.34**	-1.98
+2 to +4	H1a	< 0	Two	65	14.20	0.21
-1 to +1	H1a	> 0	Five	176	57.40*	1.47
+2 to +4	H1a	< 0	Five	176	104.42**	1.75
-1 to +1	H1b	> 0	Five	62	95.35	0.98
-1 to +3	H2	> 0	Two	30	-28.25	-0.39
-1 to +3	H2	> 0	Five	76	36.52	0.59
-1 to +1	H4c	?	Two	59	-10.50	-0.09
-1 to +1	H4c	?	Five	87	292.29*	1.76
-1 to +1	H5b	> 0	Five	61	7.47	0.09

*, **, *** significant at the .10, .05, and .01 respectively based on one tail tests where predictions are made.

[a] The actual, expected, and unexpected mean transaction sizes are standardized by multiplying the mean transaction size in shares by $\langle 1/STNDDEV \Big/ \sum_n 1/STNDDEV \rangle * N$ the standard deviation of the error terms from equation (2).

CHAPTER VI

SUMMARY AND CONCLUSIONS

I examine 8-K filings from 1993 and group them into five unique disclosure settings. Each single or combined ED, AD, and FD is then tested by disclosure setting and by type of 8-K item filed. My findings show that the differential trading activity to 8-K filings is different by the type of disclosure. Differential trading activity was found to be more pronounced in disclosure settings that contained a public announcement. This finding may be important for regulators and standard setters. Regulation FD requires registrants that need to communicate important information to shareholders to issue a press release or file an 8-K filing. Future regulation might consider the type of disclosure. In addition, the type of Form 8-K disclosure also had an effect on the differential trading activity. Form 8-K filings of acquisition or disposition of assets were the most pronounced when examining transactions around the filing of an 8-K. Finally, the differential trading activity to these filings differs from other accounting events such as earnings announcements and annual report filings. I find a small differential trading activity followed by a large differential trading activity, the opposite of other accounting events. This may suggest that large investors relative to small delay trading until the event day and small investors may not use 8-K information to trade.

This paper is subject to the following limitations. First, I did not exclude the first trade of the day for each firm. Opening trades can be an accumulation of multiple orders and it might add noise to my measures. Second, I do not test if firms self-select into the type of disclosure setting. Firms that issue or do not issue a press release or firms the

delay or accelerate these announcements might be systematically different from other firms. One interesting issue for future research is to examine what caused the day -1 small trader response. Was this decrease in mean transaction size due to more small traders or fewer large traders?

REFERENCES

Bamber, L. S., and S. Y. Cheon. 1995. Differential price and volume reactions to accounting earnings announcements. *The Accounting Review* 70 (July): 417-441.

Beatty, R. P., and J. R. M. Hand. 1992. The causes and effects of mandated accounting standards: SFAS No. 94 as a test of the level playing field theory. *Journal of Accounting, Auditing & Finance* 7 (Fall): 509-530.

Bhattacharya, N. 2001. Investors' trade size and trading response around earnings announcements: An empirical investigation. *The Accounting Review* 76 (April): 221-244.

Boone, J. P., and K. K. Raman. 2001. Auditor resignations versus dismissals: An examination of the differential effects on market liquidity and trading activity. *Advances in Accounting* 18 (Annual): 47-76.

Brackney, K. S., and W.M. Cready. 1999. Annual earnings announcement timeliness and investors' private information acquisition incentives. *Journal of Accounting and Finance Research* 7 (Summer): 40-48.

Carter, M. E., and B. S. Soo. 1999. The relevance of form 8-K reports. *Journal of Accounting Research* 37 (Spring): 119-132.

Cready, W. M. 1988. Information value and investor wealth: The case of earnings announcements. *Journal of Accounting Research* 26 (Spring): 1-27.

Cready, W. M., and P. G. Mynatt. 1991. The information content of annual reports: A price and trading response analysis. *The Accounting Review* 66 (April): 291-312.

DeFond, M., M. Ettredge, and D. B. Smith. 1997. An investigation of auditor resignations. *Research in Accounting Regulation* 11 (Annual): 25-45.

Dodd, P., N. Dopuch, R.Holthausen, and R. Leftwich. 1984. Qualified audit opinions and stock prices. *Journal of Accounting and Economics* 6 (April): 3-38.

Dopuch, N., R. Holthausen, and R.Leftwich. 1986. Abnormal stock returns associated with media disclosures of 'subject to' qualified audit opinions. *Journal of Accounting and Economics* 8 (June): 93-117.

Frankel, R., M. Johnson, and D. J. Skinner. 1999. An empirical examination of conference calls as a voluntary disclosure medium. *Journal of Accounting Research* 37 (Spring): 133-150.

Fried, D., and A. Schiff. 1981. CPA switches and associated market reactions. *The Accounting Review* 56 (April): 326-331.

Hakansson, N. H. 1977. Interim disclosure and public forecasts – An economic analysis and a framework for choice. *The Accounting Review* 52 (April): 396-416.

Johnson B., and T. Lys. 1990. The market for audit services: Evidence from voluntary auditor changes. *Journal of Accounting & Economics* 12 (January): 281-308.

Kim, J., I. Krinsky and J. Lee. 1997. Institutional holdings and trading volume reactions to quarterly earnings announcements. *Journal of Accounting, Auditing and Finance* 12 (Winter): 1-14.

Kim, O. and R. Verrecchia. 1994. Market liquidity and volume around earnings announcements. *Journal of Accounting and Economics* 17 (January): 302-21.

Klock, M. 1994. The stock market reaction to a change in certifying auditor. *Journal of Accounting, Auditing and Finance* 9 (Spring): 339-347.

Lee, C. M. C. 1992. Earnings news and small traders: An intraday analysis. *Journal of Accounting and Economics* 15 (June/September): 265-302.

Lev, B. 1988. Toward a theory of equitable and efficient accounting policy. *The Accounting Review* 63 (January): 1-22.

Pastena, V. 1979. Some evidence on the SEC's system of continuous disclosure. *The Accounting Review* 54 (October): 776-783.

Potter, G. 1992. Earnings announcements, institutional investors concentration, and common stock returns. *Journal of Accounting Research* 30 (Spring): 146-155.

Radhakrishna, B. 1998. Investors behavior around earnings announcements. Working paper, University of Minnesota, Minneapolis, MN.

Schwartz, K. B., and B. S. Soo. 1995. An analysis of Form 8-K disclosures of auditor changes by firms approaching bankruptcy. *Auditing: A Journal of Practice & Theory* 14 (Spring): 125-136.

Securities and Exchange Commission (SEC). 1973. Accounting Series No. 138 Washington, D.C.: SEC.

Securities and Exchange Commission (SEC). 2000. *Final Rule: Selective Disclosure and Insider Trading.* 17 CFR 240, 243, and 249. (August 21). Washington, D.C.: SEC.

Securities and Exchange Commission (SEC). 2002. *Proposed Rule: Additional Form 8-K Disclosure Requirements and Acceleration of Filing Date.* 17 CFR 228, 229, 240 and 249. (June 17). Washington, D.C.:SEC.

Shu S. Z. 2000. Auditor resignations: Clientele effects and legal liability. *Journal of Accounting & Economics* 29 (April): 173-205.

Smith, D. B., and D. R. Nichols. 1982. A market test of investor reaction to disagreements. *Journal of Accounting & Economics* 4 (October): 109-120.

Smith, D. B., H. Settler, and W. Beedles. 1984. An investigation of the information content of foreign sensitive payment disclosures. *Journal of Accounting & Economics* 6 (August): 153-162.

Wells, D. W., and M. L. Loudder. 1997. The market effects of auditor resignations. *Auditing: A Journal of Practice & Theory* 16 (Spring): 138-144.

Whisenant, J. S., S. Sankaraguruswamy, and K. Raghunandan. 2003. Market reactions to disclosure of reportable events. *Auditing: A Journal of Theory & Practice* 22 (Spring): 181-194.

VITA

Andrew John McLelland
PO Box 3306
Auburn, AL 36831-3306

Email: mclelaj@auburn.edu

Education Background
Ph.D., Texas A&M University, minor Econometrics; August, 2003
M.B.A., Florida State University; April, 1997
B.B.A., Florida Atlantic University; August, 1983

Business Experience
AUBURN UNIVERSITY, Assistant Professor, August 2002 - Present

TEXAS A&M UNIVERSITY, Lecturer, September 2001 – June 2002

TEXAS A&M UNIVERSITY, Research Assistant, June, 1997 – August, 2001

FLORIDA STATE UNIVERSITY, Research Assistant, May, 1996 – April 1997

AURAFIN CORPORATION, Controller, October, 1992 - December, 1995
Directed and controlled the financial reporting and analysis for the jewelry wholesale and manufacturing companies.

CLAIRE'S STORES, INC., Tax Director, January, 1991 - October, 1992
Administered tax planning and compliance for this NYSE retailer.

ARTHUR ANDERSEN, Tax Manager, Audit-Senior, September, 1983 - January, 1991
Provided tax planning and compliance for corporate, partnership, individual, and not for profit clients. Taught at firm wide and local training sessions. Performed audits of various businesses.

Associations
Certified Management Accountant (CMA); June, 1995
Certified Public Accountant (CPA); May, 1984
Member AAA and IMA